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21 October 1957
Lt Col DeBruler/AFCIN-1E /rm/76040

MEMORANDUM FOR CHIEF, AFCIN-1E

SUBJECT: Air Force Requirements for Intelligence Subject Code

1. The AHIP (Ad Hoc Committee for Information Processing) Working Group on the Intelligence Subject Code has agreed upon Terms of Reference to guide its actions as shown in Inclosure No. 1. The Air Force representative on the committee has been requested (1) to state the Air Force position regarding the philosophy under which the Intelligence Subject Code should be used by IAC members and (2), to comment upon a proposal for the revision of the present ISC made by the CIA representative. The CIA proposal is attached as Inclosure No. 2.

2. The Terms of Reference represent vital aspects of the problem before the committee; however, they cannot be used as a guide to the orderly action of the committee in arriving at a conclusion. For example, the Air Force should not comment upon any proposed revision in the present code or any other code, until the committee agrees to the concept of usage of the ISC by all member agencies of the Intelligence Advisory Committee. It is therefore intended to submit Inclosure No. 3 to the committee as a proposed means of systematically arriving at a conclusion.

3. Inclosure No. 4, which outlines the proposed Air Force position on each of the Terms of Reference is submitted for your coordination in advance of any further negotiations on the committee by the Air Force representative. Of particular importance is the proposed position on the philosophy underlying the use of the Intelligence Subject Code. Your favorable coordination on this item would give practically an automatic sanction to the proposed position on the remaining Terms of Reference.

4. The following statements pertain to the basis for developing the Air Force position:

   a. Any code for use in machine processing of data, unlike a dictionary, must fit a larger concept of a machine data processing system. An integrated system in which all IAC members participate must, as a minimum, have a common language, not merely available to the agencies, but in actual use. But, there is little need for agencies to use a common code if their basic data processing systems are not compatible.

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Subj: AF Rqmts for ISC, cont'd

b. If the other agencies of the IAC are to realize economy of operation, their data processing systems should conform to a concept based upon a one-time, manual translation of data into machine language, with all subsequent operations performed by machines. CIA and the Air Force have committed their resources to a new and common system of operation, one which is also compatible with the present intellofax system. Therefore, it is only logical that the other IAC members should design systems, including codes, which conform to systems in being.

c. In brief, the Air Force should not participate in discussions of an Intelligence Subject Code with agencies having only academic interest in such a code, or with agencies which do not intent to install data processing systems which are compatible with the Intellofax and Minicard systems. It is not logical to compromise the needs of systems in being by the academic interest of agencies having no intention to actually apply the code.

5. Your approval of the Air Force position and the proposed actions by the Air Force representative on the AHIP Working Group on the Intelligence Subject Code, is requested.

4 Incls

1. Terms of Ref.
2. Cy Memo Ch. Analysis
   Br., dtd 7 Oct 57
3. Proposed Guide for
   Action of AHIP on ISC
4. AF Position on Terms
   of Ref of AHIP on ISC

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PROPOSAL GUIDE FOR ACTION OF THE AHB
WORKING GROUP ON THE INTELLIGENCE SUBJECT CODE

1. Proposed statement of the problem. To determine:

   a. The applicability of the present Intelligence Subject Code to present and future intelligence operations of the member agencies of the IAC and to report to the AHIP on the following:

   b. The common use to which the Intelligence Subject Code should be put by IAC members.

   c. The specific revision or recasting of the Intelligence Subject Code, if required.

2. Proposed criteria for solution of the problem.

   a. The ISC must be applicable to manual or machine methods of data processing, storage and retrieval, and specifically, it must be applicable to the Intelfax and Minicard systems.

   b. The ISC must cover that range of subjects of interest to IAC member agencies using the code.

   c. The ISC must be sufficiently flexible to permit the basic structure to be expanded to meet the specialized needs of the individual IAC members using the code.

3. Suggested agenda:

   a. To agree upon a statement of the problem, (as derived from the Terms of Reference) the criteria for solution to the problem, and the proposed agenda.

   b. To agree upon the philosophy underlying the common use of the ISC.

   c. To agree in broad terms upon the structure of the ISC. (For example, it shall be a supra alpha numerical system or numerical system which shall include all subjects of interest to the intelligence community, etc.)

   d. To hear comments from each member agency as to the applicability of the present ISC to present and future data processing, storage and retrieval operations.

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e. To determine if the present ISC meets the needs of the member agencies.

f. To determine if the present ISC can be revised to meet the needs of the member agencies.

g. If the present ISC cannot be used, to determine the method by which a new code should be developed.

h. To compromise, in the code structure, conflicting requirements of member agencies.

i. To produce a new ISC in full text for comment and/or approval of member agencies.

j. To submit recommendations of the Working Group to the AHIP for approval.

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Encl IV

AIR FORCE POSITION ON TERMS OF REFERENCE OF THE
AHIP WORKING GROUP ON THE INTELLIGENCE SUBJECT CODE

1. "To review and clarify the philosophy underlying the common use of the Intelligence Subject Code (ISC)."

    a. The Intelligence Subject Code should be an index of terms encompassing all subjects of interest to the intelligence community.

    b. It should be the common subject reference used by all IAC agencies in expressing requirements for, and in disseminating, storing and retrieving of information.

    c. All IAC agencies having machine systems, should apply the ISC, according to a common set of rules governing its use, in the initial translation of information into machine language. Use of the ISC in the initial translation will permit all information to be processed manually only once and will permit automation of subsequent data processing operations.

    d. The degree of detail to which the code should be expressed in vertical organization of subjects, should be limited by the capabilities of the intelligence community to translate information initially into a code language for purposes of automatic data processing. The code should not be broken down to that detail of subject required to cover the information of interest to every analyst in the various agencies.

    e. The code should be sufficiently flexible to permit the following:

        (1) A lateral and vertical expansion to cover subject matter which is not now but may become of interest to the intelligence community.

        (2) A vertical expansion of the basic ISC to permit the use of the code for specialized, highly technical storage and retrieval tasks of the various IAC agencies.

2. "To determine the extent to which the basic ISC should be recast to meet the general needs of the IAC".

    a. The extent to which the present ISC should be recast depends, in part, upon the extent to which members of the IAC other than CIA and the Air Force intend to use the code. For example, certain sections of the ISC which might not require expansion or revision for CIA and Air Force usage, might require considerable expansion should it be the Navy's intention to use

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code. Therefore, the Air Force cannot establish its position with regard to this item in the Terms of Reference until the committee disposes of the question of the philosophy which underlies the use of the code.

b. The Air Force has been asked by the Chairman of the Working Group to comment upon the CIA proposal for the revision of the present ISC. As far as the actions of the Working Group are concerned, these comments are out of phase, however, based on the assumption that only CIA and the Air Force would be using the code as revised, the following comments are submitted:

(1) We concur with the CIA position that a classified subject heading arrangement is preferable to an alphabetical listing and agree generally with the other CIA comments concerning deficiencies in the present ISC.

(2) It is assumed that the primary basis for the changes proposed in the code were the ten years of usage of the ISC in the intelligence system by CIA. Actually, any change in the present ISC should certainly take into consideration its use in the Intelligence System, but it should also be geared to the specific needs of agencies now using or intending to use the code as the basic subject reference in machine data handling systems. Either a revision in the present code, or a completely new code, should conform to the philosophy outlined in paragraph 1, above.

(3) In addition to those defects in the ISC acknowledged in the CIA proposal, the following deficiencies are noted:

(a) Terminal digits, for example those used in the 400 section, should be eliminated. The significance of digits should proceed orderly from left to right, from the most significant to the least significant.

(b) Those sections of the code (for example, the 600 section) which must be expanded in great detail to meet the specialized needs of various agencies, should be reorganized to permit a sufficient range of numbers to cover the required expansion.

(4) Any revision of the present ISC, if the ISC is to be used only by CIA and the USAF, should begin by an analysis of loading of code (frequency of appearance of codes) in the various codings. Then the code structure should be critically examined by representatives of CIA and the USAF working jointly.

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3. "To develop a practical plan for specialized user expansions of the ISC beyond the basic structure."

a. The degree to which the subject matter of a document may be classified is limited by the technical capabilities of the individuals making the classification, regardless of the degree of technical detail contained in the subject code. The coder cannot go beyond his own knowledge of the subject matter in attempting to determine which number in a coding system should be applied. Therefore, specialized user expansion should begin at that point in the ladder of abstraction of subject matter where the capabilities of the coder will no longer permit him to distinguish between subjects.

b. Specialized user expansion of the code should be within the limit of six numeric characters. In order to stay within these limits, the present ISC must necessarily be revised to yield a greater economy in the use of available number combinations.

4. "To agree to methods for systematic revision, printing, and distribution of the basic ISC".

a. A method for maintaining the basic ISC current is obviously necessary to any joint usage of the code. The method by which this is accomplished is essentially an administrative matter in which the Air Force will be an active and willing participant.

5. "To recommend action to AHIP as soon as possible, outlining ways and means by which the ISC should be modified."

a. It is the Air Force position that the Working Group should first present to the AHIP Committee for approval: the proposed statement of the problem, the criteria for solution, the agenda of the Working Group, and the Terms of Reference.

b. The Committee Chairman of the Working Group should not submit to the AHIP Committee the proposed CIA revision for the present ISC or any other specific proposal as to the code structure, until after the Working Group has completed the various actions in the agenda proposed by the Air Force.